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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,472	06/09/2000	Richard Robert Boland	Boland 8-2-15-2	2777

7590 09/11/2003

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EXAMINER

ESCALANTE, OVIDIO

ART UNIT	PAPER NUMBER
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2645

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/591,472

Applicant(s)

BOLAND ET AL.

Examiner

Ovidio Escalante

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 8, 11-13, 17, 18, 21-23, 27, 28 and 31-42 is/are rejected.
- 7) ☒ Claim(s) 4-6, 9, 10, 14-16, 19, 20, 24-26, 29, 30 and 43 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on page 2, lines 8-9, the U.S. Serial Number should be entered. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1,7,11,17,21,27 and 33-38 are rejected under 35 U.S.C. 102(e) as being anticipated by McHenry et al. US Patent 6,397,055.

Regarding claims 1,11 and 21, McHenry teaches a method, apparatus and system for message-based intelligent tandeming of an incoming call to an application node (landline facility) in telecommunication systems, (col. 6, lines 1-24), the method, apparatus and system comprising:

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(a) receiving an incoming call leg directed to a called party directory number, (col. 9, lines 53-58; the switch (network interface) receives an incoming call from landline terminal 35 directed to called party 11);

(b) transmitting a first message to a database (SCP 39 & LIDB 41; col. 9, lines 1-12) to determine call treatment instructions, (col. 9, line 39-52, 58-col. 10, line 5), (the processor in the switch sends a query (first message) to determine whether normal call processing or AIN processing should be initiated based upon profile information);

(c) receiving a second message containing a tandem parameter, (second message indicates to the switch whether AIN processing or normal processing is triggered; col. 9, line 58-col. 10, line 7);

(d) when the tandem parameter does not indicate tandeming (normal call processing), routing the incoming call leg to the called party directory number, (col. 9, lines 58-61; col. 11, lines 52-67);

(e) when the tandem parameter does indicate tandeming, (AIN processing for CPP calls), obtaining a routing parameter and performing digit analysis of the called party directory number, (col. 11, lines 52-62; col. 12, lines 1-23; routing parameters indicate to the processor which application node (i.e. landline facility) to route the caller to e.g. which landline facility and also to determine whether the called party is a subscriber to a CPP service based on digit analysis);

(f) when the digit analysis has been performed successfully, tandeming the incoming call leg to the application node (adjunct network entity), (col. 12, lines 24-51; when the called party number has been determined to be a subscriber to the CPP service, the incoming call is tandemed by the processor to the CPP landline facility node); and

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(g) when the digit analysis has not been performed successfully, providing a default mode for the incoming call leg, (col. 11, lines 58-62), (if the called number did not match a stored number in the database, thus indicating a non-subscriber, a default mode i.e. routing to the called number is invoked, (step S5-fig. 2A).

Regarding claims 7,17,27, McHenry teaches wherein the tandem parameter has a first predetermined value to indicate that the incoming call leg is not to be tandemmed to the application node, (normal call processing), and wherein the tandem parameter has a second predetermined value to indicate that the incoming call leg is to be tandemmed to the application node, (AIN processing for CPP calls), (col. 9, lines 39-col. 10, line 5).

Regarding claim 33, McHenry teaches wherein the switching center is a mobile switching center, (MSC 15).

Regarding claim 34, McHenry teaches wherein the switching center is a wireline switching center, (end office 31; switch 51).

Regarding claim 35, McHenry teaches wherein the application node is a prepaid telecommunication service, (col. 15, lines 14-47).

Regarding claim 36, McHenry teaches wherein the application node is a calling party pays telecommunication service, (col. 10, lines 8-43).

Regarding claim 37, McHenry teaches wherein the application node is a one number telecommunication service, (col. 10, lines 8-25).

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Regarding claim 38, McHenry teaches wherein the switching center transmits and receives a plurality of messages, to and from the database, via a second switching center, (col. 9, lines 27-52).

4. Claim 39 is rejected under 35 U.S.C. 102(e) as being anticipated by Buhrmann et al. US Patent 5,905,789.

Regarding claim 39, Buhrmann teaches a tandem parameter (call completion feature active parameter-step 708, fig. 7), the tandem parameter for use in a message transmitted from a database to a network switch (switching center), (col. 10, lines 56-66), the tandem parameter comprising:

a first predetermined value (not active), the first predetermined value designating that no tandeming is to be performed for an incoming call leg to the network switch, (col. 10, line 65-col. 11, line 3; the calling party will not be tandemed to a node and will instead be connected to the called party); and

a second predetermined value (active), the second predetermined value designating that tandeming is to be performed for the incoming call leg to the network switch, (col. 10, lines 62-65; col. 11, lines 4-23; the calling party is connected to a node e.g. a voice mail adjunct).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 2,12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over McHenry in view of Applicant's admitted prior art.

Regarding claims 2,12 and 22, McHenry, as applied above, does not specifically teach wherein step (g) further comprises: transmitting a third message to the database, the third message indicating a tandeming failure. However, as noted by the applicants in page 2, lines 18-23, it was well known in the art to indicated that tandeming is unsuccessful and therefore, one skilled in the art would have modified McHenry to provide a third message to the database so that the instructions can be provided to the switch to at least provide the default mode of reorder i.e. fast busy to indicate to the calling party to redial the number since the calling party failed to get connected to a destination.

8. Claims 3,8,13,23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over McHenry in view of Applicant's admitted prior art and further in view of Lewis US Patent 6,175,574.

Regarding claims 3,8,13,23 and 28, while McHenry, as applied above, teaches of indicating a tandeming failure and of indicating a tandem parameter, McHenry does not specifically teach of the a predetermined value in an ANSI-compatible redirection reason being

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indicated or wherein the tandem parameter is a predesignated value of a single-octet field or a plurality of octets within an ANSI-compatible calling features indicator parameter. However, the Examiner notes that it was well known in the art that signaling messages from the database to the network switch are arranged in the form of bits, i.e. octets that indicate to the switch information for processing the call. It would have been obvious if not inherent that McHenry would receive the tandem parameters as encoded octets so that the network switch can interpret the received message.

Nonetheless, Lewis teaches that it was well known in the art to indicate to a switch a value which is encoded in a single-octet field or a plurality of octets within an ANSI-compatible calling features indicator parameter, (col. 13, line 37-col. 14, line 30). Lewis teaches that the octets comprise of information regarding where to route the call, incoming party ID and called party ID, (fig. 5; fig. 8). The encoding of Lewis is within an ANSI-compatible calling feature since Lewis uses SS7 messages.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the predetermined value of McHenry to include an ANSI compatible parameter arranged as octet fields as taught by Lewis so that the network switch can properly interpret the received message from the database for call routing instructions.

9. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over McHenry in view of Hentilä et al. US Patent 6,219,551.

Regarding claims 31 and 32, while McHenry teaches of using databases and integrating wireline and wireless network, McHenry does not specifically teach of wherein the database is a home location register or a visitor location register. However, it would have been obvious if not

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inherent that McHenry would have an HLR or VLR since McHenry uses a mobile switching center to contact a wireless subscriber at it was well known in the art that mobile switching centers use HLR's to retrieve wireless subscriber information, (col. 3, line 51-67; col. 4, lines 18-22).

Nonetheless, Hentilä teaches that it was well known in the art to have a mobile switching center which contacts a HLR/VLR database to locate a mobile subscribers profile, (col. 3, lines 51-col. 4, line 3). Hentilä also uses the HLR/VLR database for call routing information.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of McHenry by including an HLR/VLR as taught by Hentilä so that the mobile switching centers can determine call routing information for a mobile subscriber.

10. Claims 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buhrmann in view of Lewis.

Regarding claims 40-42, While Buhrmann teaches of receiving the tandem parameter via SS7 signaling, Buhrmann does not specifically teach of wherein the parameter is encoded as an octet.

However, the Examiner notes that it was well known in the art that signaling messages from the database to the network switch are arranged in the form of bits, i.e. octets that indicate to the switch information for processing the call. It would have been obvious if not inherent that Buhrmann would receive the tandem parameters as encoded octets so that the network switch can interpret the received message.

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Nonetheless, Lewis teaches that it was well known in the art to receive signaling message and that the signaling messages are encoded as single or a plurality of octets, (col. 13, line 37- col. 14, line 30). Lewis teaches that the octets comprise of information regarding where to route the call, incoming party ID and called party ID, (figs. 5; fig. 8). The encoding of Lewis is within an ANSI-compatible calling feature since Lewis uses SS7 messages.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the predetermined value of Buhrmann to include an ANSI compatible parameter arranged as octet fields as taught by Lewis so that the network switch can properly interpret the received message from the database for call routing instructions.

11. Claims 1, 11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buhrmann in view of Will US Patent 5,905,789.

Regarding claims 1, 11 and 21, Buhrmann teaches a method, system and apparatus for message-based intelligent tandemming of an incoming call to an application node (e.g. voice mail system) in telecommunication systems, (abstract), the method comprising:

(a) receiving an incoming call leg directed to a called party directory number, (col. 10, lines 45-52; col. 11, lines 4-8);

(b) transmitting a first message to a database to determine call treatment instructions, (col. 11, lines 6-8);

(c) receiving a second message containing a tandem parameter, (col. 10, lines 54-67; col. 11, lines 8-10);

(d) when the tandem parameter does not indicate tandemming (call completion not active), routing the incoming call leg to the called party directory number, (col. 10, lines 65-67);

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(e) when the tandem parameter does indicate tandeming, (call completion active), obtaining a routing parameter and performing digit analysis of the called party directory number, (col. 10, lines 62-65; col. 11, lines 8-13);

(f) when the digit analysis has been performed successfully, tandeming the incoming call leg to the application node (voice mail node), (col. 11, lines 8-13).

Buhrmann does not specifically teach of providing a default mode for the incoming call leg when the digit analysis has not been performed successfully.

Will teaches that it was well known in the art to tandem a call and to an application node if the digit analysis was success and when the digit analysis has not been performed successfully, providing a default mode for the incoming call leg, (fig. 2; col. 5, lines 50-67). The default mode of Will provides an announcement to the caller.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Buhrmann by providing a default mode when the digit analysis has not been preformed successfully as taught by Will so that the calling party can be notified that connection to the application node/called party failed and must redial the number.

Allowable Subject Matter

12. Claims 4-6,9,10,14-16,19,20,24-26,29,30 and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach of the tandem parameter is a predesignated value of a field

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within an ANSI-compatible message including a registration notification return result, a qualification request return result, a location request return result, and a qualification directive (invoke) or

the prior art does not providing a plurality of secondary treatments which include of routing the incoming call leg to the called party number, forwarding the incoming call leg to a second directory number, forwarding the incoming call leg to a message service and providing for an announcement to a calling party.

Conclusion

13. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Or:

(703) 872-9314, (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ovidio Escalante whose telephone number is (703) 308-6262. The examiner can normally be reached on Monday to Friday from 6:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached on (703) 305-4895. The fax phone number for this Group is (703) 872-9314.

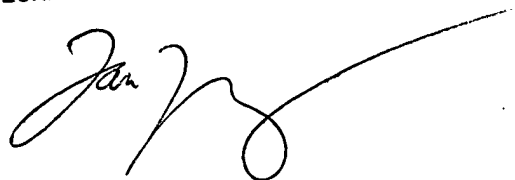
Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [fan.tsang@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ovidio Escalante
Examiner
Group 2645
September 5, 2003

FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

A handwritten signature in black ink, appearing to read 'Fan Tsang', written over the printed name and title.